AMENDMENTS TO THE SPECIFICATION

Please substitute the following paragraph for the paragraph beginning on page 7, line 18:

Referring to Figs. 1 and 2, position sensor 10 includes two low carbon ferrous plates 12 of preferably cold rolled steel. A magnet 14 is located at each end of the ferrous plates 12 which are in parallel arrangement. Each magnet 14 includes a north and south pole and ~~ay~~ may be of the samarium cobalt type having an energy property of 22MGOe. Variations in the types of magnets and magnetic fields strengths along with different types of ferrous materials are within the scope of this invention. Located between plates 12 and also between magnets 14 is a magnetic flux responsive device 16 in the form of a Hall effect integrated circuit such as a Micronas Hal 805. Again, the type of magnet responsive device can vary with application.

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Please substitute the following paragraph for the paragraph beginning on page 8, line 11:

In Fig. 3, movement of the magnets 14 and connected plates 12 relative to integrated circuit 16 is illustrated for 3 positions. With the north/south poles of magnets 14 being oriented as illustrated so as to be aligned perpendicularly to plates 12, position 1 of fig. 3 shows the integrated circuit 16 located adjacent the left most magnet 14 as viewed in the figures with the magnetic field direction being illustrated as shown by arrow 18. As the relative movement between plates 12 and integrated circuit 16 takes place, integrated circuit 16 approaches a middle location as illustrated in position 2 of Fig. 3 in which a zero magnetic field is sensed by the integrated circuit. This is illustrated by arrow 20 in position 2. When further relative movement between the integrated circuit and plates occur with the integrated circuit now being located next to magnet 14 located at the right of the illustration as viewed in Fig. 3, the magnetic field

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[directin] direction is shown by arrow 22. Thus, in position ~~1~~ 3, of Fig. 3 the magnetic field, illustrated by arrow ~~18~~ 22, ~~would be~~ is at a maximum positive field illustrated by arrow 22.

Please substitute the following paragraph for the paragraph beginning on page 9, line 18:

The magnetic assemblies thus far described use the illustrated straight plates 12. It is understood that the parallel ferrous plates are not required to be straight, but can be curved and will perform in the same manner as described with regard to the figures of this invention. When plates 12'' are curved or circular, the position sensor will be used to sense radial movement or positions as seen in Figs. 11-22. It is further contemplated that plate ~~12''~~ 12''' may be cylindrical as seen in Figs. 29 and 30 or plates ~~12''~~ 12''' may be circular and concentrically orientated with magnets 14 being located at diametrically opposite locations between the spaced circular plates as seen in Figs. 23-26. Further two or more Hall effect devices could be located between the ferrous plates to produce multiple outputs. Also the magnetic assemblies can be stacked, that is three parallel plates 12 with a Hall effect device 16 between each adjacent pair of plates having a magnet 14 at each of their ends as seen in Figs. 27 and 28.

Please substitute the following paragraph for the paragraph beginning on page 10, line 15:

Figures 8 and 9 are illustrative of a third embodiment in which plates 12' are of a variable width W. In this position sensor 10'' a magnet 14 is located at each end of the plates 12' and the ~~Hal~~ Hall effect integrated circuit 16 is positioned between the plates. By varying the width of the ferrous plates, the slope of the output of the integrated circuit is changed as indicated by slope 26 in the graph of Fig. 10. ~~This output of the integrated circuit is changed as indicated of being a~~ The constant linear line, as produced by the embodiments of Figs. 1-6 with respect to the position

of the integrated circuit relative to plates 12', ~~is sloped~~ has a slope that varies depending upon the configuration or the width of the plates.

Please add the following paragraph at page 12, before the paragraph beginning on line 3:

In Fig. 32, ferrous plate 52 is shown with a first side 51 and a second side 53 and ferrous plate 54 is illustrated with a first side 55 and a second side 57. Magnets 56 and 58 are located on first side 51 of ferrous plate 52 and magnets 60 and 62 are located on first side 55 of ferrous plate 54. Magnetic flux responsive device 16 is more closely positioned proximate to second sides 53 and 57 of ferrous plates 52 and 54, respectively, than to first sides 51 and 55, and magnets 56, 58, 60 and 62. This advantageously provides for a more uniform flux concentration since magnets 56, 58, 60 and 62 are on different sides of ferrous plates 52 and 54 from magnetic flux responsive device 16, as shown in Fig. 32.

Please substitute the following paragraph for the paragraph beginning on page 14, line 15:

Ferrous plates 12 and rings 102 and 104 can be formed in varying widths, as shown in Fig. 8, and may be of varying thickness and shaped to vary the distance between plates ~~12,1~~ 12' and between rings 102 and 104. Each variation in thickness, width and shape is used to purposely alter the electrical output of magnetic flux responsive device 16.